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Title : Ecological aspects of a marine tucuxi dolphin (Sotalia fluviatilis) population at the Cananéia estuary, Brazil.

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Abstract : The estuary of Cananéia (25°03'S, 47°55'W), placed at southeastern Brazil and with around 60 km^2 of area, is a special breeding area for marine tucuxi dolphins, Sotalia fluviatilis (Gervais, 1853). In order to investigate unknown aspects on this species ecology in local waters, photo-identification studies begun in 1996. A reflex camera with 300mm zoom lens and ISO-400 color printed films were used. Platforms of observations were a 6m long boat with 15 and 35 hp outboard engines, and two local beaches where some individuals can be observed in shallow waters on foraging and feeding activities. A total of 28,285 photographs were analyzed (23,573 from boat and 4,712 from land). Around 21% (5,987) of all pictures were considered useful for identification purposes and 161 individuals with conspicuous notches on dorsal fin borders were catalogued. In all the covered area, the most common behavioral activity observed was foraging and feeding (86% of all events). Group sizes varied from 2 to 60 individuals (boat-based observations), and from 2 to 15 individuals (land-based observations). Most groups were composed by 2 to 10 individuals (61.7%). "Aggregations" of 40 to up to 60 individuals composing fluid smaller groups have been reported in deep estuarine waters (12 to 23m). Calves were observed year-round with no seasonal peaks. Calving intervals observed for 6 females lasted around 3+ years. Most catalogued individuals remain in the area showing strong evidences of site fidelity. Two females have been observed since 1997 in a restricted area of 9 km^2, whereas other five individuals of unknown sex have been reported along almost all the estuarine area. Mark-recapture models for closed populations showed that the it can be estimated to reach up to 400 individuals, probably one of the largest aggregations for the species. The continuum of this study will give clues to better understand this species natural history.